Case 3616

Neobisium Chamberlin, 1930, NEOBISIOIDEA Chamberlin, 1930, NEOBISIIDAE Chamberlin, 1930 and NEOBISIINAE Chamberlin, 1930, (Arachnida, Pseudoscorpiones, Chelonethi): proposed conservation by designation of *Obisium muscorum* Leach, 1817 as the type species of *Obisium* Leach, 1814

Mark L.I. Judson

Muséum national d'Histoire naturelle, Département Systématique et Évolution, CNRS UMR 7205, 57 rue Cuvier, C.P. 53, 75005 Paris, France
(e-mail judson@mnhn.fr)

Abstract. The purpose of this application, under Articles 65.2.1 and 65.2.2 of the Code, is to conserve the usage of the widely used generic name *Neobisium* Chamberlin, 1930 and of the family-group names NEOBISIINAE Chamberlin, 1930, NEOBISIIDAE Chamberlin, 1930 and NEOBISIOIDEA Chamberlin, 1930. These names are threatened by an overlooked fixation (by monotypy) of *Chelifer trombidioides* Latreille, 1804 as the type species of *Obisium* Leach, 1814 (a junior homonym of *Obisium* Illiger in Kugelann and Illiger, 1798) and hence of its replacement, *Neobisium*. *Chelifer trombidioides* is a senior objective synonym of *Obisium orthodactylum* Leach, 1817, the type species of *Chthonius* C.L. Koch, 1843 by subsequent designation of Simon (1879), which makes *Neobisium* a junior objective synonym of *Chthonius*. Consequently, family-group names based on *Neobisium* (currently in use up to superfamilial level) would become junior objective synonyms of those based on *Chthonius*. In order to maintain current usage of the names concerned, it is proposed that *Obisium muscorum* Leach, 1817 be designated as the type species of *Obisium* Leach, 1814.

Keywords. Nomenclature; taxonomy; Arachnida; Chelonethi; NEOBISIOIDEA; NEOBISIIDAE; NEOBISIINAE; *Obisium*; *Neobisium*; *Chelifer trombidioides*; *Chthonius ischnocheles*; *Neobisium carcinoides*; *Obisium muscorum*; pseudoscorpions.

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1. The generic name *Obisium* was first proposed by Illiger (in Kugelann & Illiger, 1798, p. 501) for the pseudoscorpion species *Acarus cancroides* Linnaeus, 1758 (as *Scorpio cancroïdes*) and *Scorpio cimicoides* Fabricius, 1793 (as '*S. cimicoïdes* Fabr.'). Under Article 12.2.5 of the Code, *Obisium* Illiger in Kugelann & Illiger, 1798 is an available name. *Acarus cancroides* was later designated as the type species by Westwood (1836, p. 10), making *Obisium* Illiger a junior objective synonym of *Chelifer* Geoffroy, 1762, which has the same type species (by subsequent designation by Latreille, 1810; see Opinions 11 (Opinions and Declarations **1C**: 15–34, May 1955) and 136 (Opinions and Declarations **2**: 13–20 August 1939)). Illiger (1807, p. 221) indicated that *Obisium* was a misspelling of *Opisium*, but since there is no internal evidence of an error in Kugelann & Illiger (1798), *Opisium* Illiger, 1807 is an

unjustified emendation (Article 33.2.3 of the Code). The name *Obisium* Illiger in Kugelann and Illiger, 1798 was placed on the Official List of Rejected and Invalid Generic Names in Zoology by Opinion 1542 (BZN **46**: 143–144, June 1989) as a junior objective synonym of the conserved name *Chelifer* Geoffroy, 1762, but it remains available for purposes of the Principle of Homonymy.

2. Leach (1814, p. 429) adopted the name *Obisium* for a different generic concept, including only *Chelifer trombidioides* Latreille, 1804. Most authors have attributed *Obisium* to Leach (1817), although Kew (1911, p. 52) attributed it to Leach (1816a), which he incorrectly dated as 1815. Later, Kew (1916, p. 122) noted the use of the combination *Obisium trombidioides* in Leach (1814).

3. Sundevall (1833, p. 33) proposed the family OBISIIDAE (in the Latin plural form 'OBISIDES') for '*Obisium* Ill. Leach. Herm' and '*Chelifer* Geoff. Leach. Herm.'. Because Sundevall (1833, p. 33) recognized *Chelifer* and *Obisium* as separate genera, the type genus is *Obisium* Leach, 1814. Because they did not recognize *Obisium* Leach, 1814 as a distinct nominotypical taxon, Harvey & Mahnert (2011, p. 49) considered *Obisium* Illiger to be the type genus of OBISIIDAE, which led them to treat the latter as an objective synonym of CHELIFERIDAE Risso, 1827 (Judson, 2012, pp. 26–27; M.S. Harvey and V. Mahnert, in litt.). Authorship of CHELIFERIDAE was attributed to Westwood (1838) in the Official List of Family-Group Names in Zoology by Opinion 1542, but Harvey (1991, p. 482) later attributed it to 'Risso 1826' (published 22 September 1827: see Forrest 1958, p. 474, footnote), based on the assumption that 'Cheliferides' as used in that work was a Latin plural (M.S. Harvey, in litt.). Judson (2012, p. 26) showed, from internal evidence, that Risso (1827, p. 157) had employed Cheliferides solely as a French vernacular form. Judson (2012, p. 26) did not accept the attribution of the name to Risso on the grounds that it contravened Article 79.4.1 of the Code, but this interpretation is fallacious because Article 79.4.1 only governs names placed on a List of Available Names in Zoology; it does not apply to names placed on the Official List of Family-Group Names in Zoology. Because CHELIFERIDAE has otherwise been attributed to Risso [1827] by all authors since 1991 (ignoring an erroneous attribution to Hagen, 1879), a request is made in this application to emend the authorship of CHELIFERIDAE in the Official List of Family-Group Names in Zoology to Risso [1827], on the grounds that this usage satisfies the requirements of Article 11.7.2. In support of this request, a list of 30 works published since 1991 in which authorship of CHELIFERIDAE or CHELIFEROIDEA has been attributed to Risso [1827] has been forwarded to the Commission.

4. The genus *Chthonius* C.L. Koch, 1843 was erected for *Chelifer trombidioides* Latreille, 1804 and *Obisium orthodactylum* Leach, 1817 by Koch (1843, p. 76). The type species of *Chthonius* was subsequently designated as *O. orthodactylum* by Simon (1879, p. 69). Although Koch (1843) and Simon (1879) treated them as separate species, *O. orthodactylum* Leach, 1817 (p. 51) was introduced as an unnecessary replacement name for *C. trombidioides* Latreille, 1804 (which Leach listed as a synonym of *orthodactylum*), which makes them objective synonyms (Article 72.7 of the Code) (Judson, 1997, p. 2; 2012, p. 25). This in turn means that *Chthonius* C.L. Koch, 1843 is a junior objective synonym of *Obisium* Leach, 1814 (Article 61.3.3 of the Code).

5. Simon (1879, p. 51, footnote) wrongly considered *Obisium* Illiger to be a nomen nudum and attributed its first valid use to Leach (1817), overlooking Leach's earlier papers (1814, 1816a, 1816b). Simon (1879, p. 51) designated *Obisium muscorum*

Leach, 1817 (currently a junior subjective synonym of *Neobisium carcinoides* (Hermann, 1804)) as the type species of *Obisium*, which was consistent with usage following Koch (1843), but invalid according to the Code because *O. muscorum* was not an originally included species (Article 67.2).

6. The subfamily CHTHONIINAE Daday, 1889 was erected by Daday (1889a, p. 133, 1889b, p. 189) for the genus *Chthonius* C.L. Koch, 1843. Coordinate family-group names are currently in use up to the superfamilial level.

7. Chamberlin proposed *Neobisium* Chamberlin, 1930 (p. 11) as a replacement name ('nom. nov.') for *Obisium* Leach, along with the replacement family-group names ('nom. nov.') NEOBISIIDAE Chamberlin, 1930 (p. 9), for 'OBISIIDAE Hansen, 1894', and NEOBISIINAE Chamberlin, 1930 (p. 9), for 'OBISIINAE Simon, 1879'. Chamberlin (1930) did not mention the older name OBISIIDAE Sundevall, 1833. The superfamily name NEOBISIOIDEA Chamberlin, 1930 was proposed as new (p. 9), rather than as a replacement, since Chamberlin was not aware of any prior use of OBISIOIDEA [it had in fact been employed by Kishida (1929), but Chamberlin never referred to this work] and the principle of coordination did not apply at that time. Chamberlin stated (p. 12) that 'The adoption of the name [*Obisium*] by Leach for use in connection with the species *muscorum* cannot be sustained. A new name therefore becomes necessary for the present group, which, in spite of the very evident synonymy [of *Obisium* Illiger in Kugelann and Illiger, 1798 with *Chelifer* Geoffroy, 1762], has gone under the name of *Obisium* ever since Leach's time.' Chamberlin (1930, p. 11) overlooked Leach (1814) and attributed *Obisium* to Leach (1817). Chamberlin (1930) accordingly treated *O. muscorum* Leach, 1817 as the type species of *Neobisium*, explicitly stating (p. 11) that it had been 'designated by Simon [1879]'. Following Simon (1879), those authors who have treated *Obisium* Leach as an available name have consistently considered *O. muscorum* to be its type species. All authors have treated *O. muscorum* as the type species of *Neobisium*, either because of its designation as the type species of *Obisium* Leach by Simon (1879) or by its supposed designation by Chamberlin (1930). Both rationales are incorrect because a replacement generic name has the same type species as that of the name it replaces (Article 67.8 of the Code), which in this case is *Chelifer trombidioides*.

8. In their application to the Commission to give *Neobisium* precedence over *Blothrus* Schiödte, 1847 (Case 3533), Harvey & Mahnert (2011) did not recognize *Obisium* Leach as a nominal taxon separate from *Obisium* Illiger. They therefore treated *Neobisium* as having been proposed as a new genus by Chamberlin (1930), with *O. muscorum* as its type species 'by original designation'. According to their interpretation, Chamberlin (1930) would have erred in attributing the designation of the type species to Simon (1879) and in presenting *Neobisium*, NEOBISIINAE and NEOBISIIDAE as replacement names.

9. Judson (2012) provided a detailed account of the complex nomenclatural history of *Obisium* Leach, 1814 and argued (pp. 24–25) that Leach's (1814, 1816a, 1816b, 1817) use of the name *Obisium* for a genus distinct from that previously denoted by *Obisium* Illiger in Kugelann and Illiger, 1798 was deliberate and in keeping with the contemporary nomenclatural rules of Linnaeus (1751) and Fabricius (1778). The first worker to note the previously overlooked fixation by monotypy in Leach (1814) of *Chelifer trombidioides* as the type species of *Obisium* Leach, 1814, was Judson (2012, p. 23), who discussed its implications (pp. 25–26).

10. Opinion 2304 (BZN **69**: 235–236) placed *Neobisium* Chamberlin, 1930 on the Official List of Generic Names in Zoology, with *Obisium muscorum* Leach, 1817 as its type species 'by original designation'. In taking this action, the Commission was unaware of the original designation of *Chelifer trombidioides* Latreille, 1804 as the type species of *Obisium* Leach, 1814 and incorrectly treated *Neobisium* as having been proposed by Chamberlin (1930) as a new genus (as opposed to a replacement name for *Obisium* Leach).

11. Maintaining *Chelifer trombidioides* Latreille, 1804 as the type species of *Obisium* Leach, in strict adherence to the Code, would have the following consequences:

(a) *Obisium* Leach, 1814 and its replacement, *Neobisium* Chamberlin, 1930, would become junior objective synonyms of *Chthonius* C.L. Koch, 1843. The large number (over 232) of valid species currently assigned to *Neobisium* Chamberlin, 1930 (Harvey, 2011) would consequently have to be transferred to its synonym, *Blothrus* Schiödte, 1847, which is precisely what Opinion 2304 sought to avoid.

(b) If the subgeneric classification of the genus *Neobisium* were to be maintained in its current state, the species now assigned to *Neobisium* (*Neobisium*) Chamberlin, 1930 would have to be placed in a new subgenus, since no junior synonyms are recognized at present (Harvey, 2011). However, such a name would probably prove to be superfluous, since the current subgeneric classification is highly artificial and several existing genus-group names may be synonymous with *Neobisium* (*Neobisium*) in its current sense (Ćurčić, 1984; Dashdamirov, 2012), including *Neobisium* (*Blothrus*).

(c) The synonymy of *Neobisium* with *Chthonius* would entail the synonymy of the family-group names based on these names (Judson, 2012, p. 26). Thus the widely employed names NEOBISIINAE Chamberlin, 1930, NEOBISIIDAE Chamberlin, 1930 and NEOBISIOIDEA Chamberlin, 1930 would respectively become junior objective synonyms of CHTHONIINAE Daday, 1889, CHTHONIIDAE Daday, 1889 and CHTHONIOIDEA Daday, 1889.

(d) The taxa currently referred to as NEOBISIIDAE and NEOBISIOIDEA would have to be renamed using coordinate names based on MICROCREAGRINAE Balzan, 1891 (p. 543) (Judson, 2012, p. 26; publication date of MICROCREAGRINAE corrected following Mahnert, 2013, p. 20).

(e) The current subfamily NEOBISIINAE, comprising 12 genera (Harvey, 2011), would have to be given a new name (if recognized: the separation of NEOBISIINAE and MICROCREAGRINAE, as currently defined, is artificial), since it has no junior synonyms (Harvey, 2011).

12. The changes listed above would be highly disruptive and confusing. It is very unlikely that they would be accepted by those working on the group, particularly as the sole cause would be an overlooked type designation for an invalid generic name. Thus there is ample justification for invoking the use of the plenary powers under Articles 65.2.1 and 65.2.2. The simplest way to resolve the problem would be for the Commission to rule that *O. muscorum* Leach, 1817 is the type species of *Obisium* Leach, 1814. This solution, which was recommended by Judson (2012), would conform to previous usage of both *Obisium* Leach and *Neobisium*, by eliminating the possibility of synonymy with *Chthonius*, and allow the continued use of the

universally accepted family-group names NEOBISIIDAE and NEOBISIOIDEA. The alternatives of suppressing *Obisium* Leach or ruling that it never existed as a nominal taxon separate from *Obisium* Illiger would not reflect the usage of this name between 1843 and 1930, or that of OBISIIDAE and coordinate names between 1833 and 1930. They would also contradict Chamberlin's (1930) explicit treatment of the names he proposed as being replacement names, as well as his attribution of the type species designation to Simon (1879). Some of these difficulties could be avoided by instead ruling that *Obisium* Leach was first made available by Leach (1817), as opposed to Leach (1814), Leach (1816a) or Leach (1816b), in each of which it was treated as a monotypic genus. However, the disadvantages are that this would not be in accordance with Leach's original intentions and it would leave open the possibility that a valid designation of a type species for *Obisium* Leach prior to that of Simon (1879) might be discovered in future.

13. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary power to set aside all fixations of type species for the nominal genus *Obisium* Leach, 1814 before the designation of *Obisium muscorum* Leach, 1817 by Simon (1879) as the type species;

(2) to emend the entry for *Neobisium* Chamberlin, 1930 in the Official List of Generic Names in Zoology to record that it was introduced as a replacement name for *Obisium* Leach, 1814 (due to homonymy with *Obisium* Illiger in Kugelann and Illiger, 1798) and that its type species is consequently *Obisium muscorum* Leach, 1817, as ruled in (1) above;

(3) to place on the Official Index of Rejected and Invalid Generic Names in Zoology *Obisium* Leach, 1814 (a junior homonym of *Obisium* Illiger in Kugelann and Illiger, 1798), type species *Obisium muscorum* Leach, 1817, as ruled in (1) above;

(4) to emend the entry on the Official List of Family-Group Names in Zoology for CHELIFERIDAE to record that its author is Risso [1827].

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